

OLYMPIAN™



GEP625-1

*Diesel Generator Set
Exclusively from your Cat® dealer*

Output Ratings

Generating Set Model	Prime*	Standby*
-	-	-
480V, 60 Hz	563.0 kVA 450.4 kW	625.0 kVA 500.0 kW

* Refer to ratings definitions on page 4.
Ratings at 0.8 power factor.

Technical Data

Engine Make & Model:	Perkins 2506A-E15TAG4	
Alternator Model:	LL6114F	
Base Frame Type:	Heavy Duty Fabricated Steel	
Circuit Breaker Type:	3 Pole MCCB	
Frequency:	50 Hz	60 Hz
Engine Speed: RPM	-	1800
Fuel Tank Capacity: litres (US gal)	928 (245.2)	
Fuel Consumption, Prime: l/hr (US gal/hr)	-	109.4 (28.9)
Fuel Consumption, Standby: l/hr (US gal/hr)	-	120.1 (31.7)

Engine Technical Data

Physical Data	
Manufacturer:	Perkins
Model:	2506A-E15TAG4
No. of Cylinders/Alignment:	6 / In Line
Cycle:	4 Stroke
Induction:	Turbocharged Air To Air Charge Cooled
Cooling Method:	Water
Governing Type:	Electronic
Governing Class:	ISO 8528 G2
Compression Ratio:	16.0:1
Displacement: l (cu.in)	15.2 (927.6)
Bore/Stroke: mm (in)	135.0 (5.3)/167.0 (6.6)
Moment of Inertia: kg m ² (lb. in ²)	4.29 (14660)
Engine Electrical System:	
-Voltage/Ground:	24/Negative
-Battery Charger Amps:	70
Weight: kg (lb) - Dry:	1633 (3600)
- Wet:	1714 (3779)

Air System	50 Hz	60 Hz
Air Filter Type:	Paper Element 18"	
Combustion Air Flow:		
m ³ /min (cfm)	-Standby:	- 38.0 (1342)
	-Prime:	- 38.0 (1342)
Max. Combustion Air Intake		
Restriction: kPa (in H ₂ O)	-	6.2 (24.9)
Radiator Cooling Air Flow:		
m ³ /min (cfm)	-	822.0 (29029)
External Restriction to		
Cooling Air Flow: Pa (in H ₂ O)	-	125 (0.5)

Cooling System	50 Hz	60 Hz
Cooling System Capacity:		
l (US gal)	-	38.3 (10.1)
Water Pump Type:	Centrifugal	
Heat Rejected to Water & Lube Oil: kW (Btu/min)		
-Standby:	-	132.0 (7507)
-Prime:	-	129.0 (7336)
Heat Radiation to Room:		
kW (Btu/min)	-Standby:	- 61.0 (3469)
	-Prime:	- 53.0 (3014)
Radiator Fan Load: kW (hp)	-	28.0 (37.6)
Cooling system designed to operate in ambient conditions up to 50° C (122° F). Contact your local Olympian dealer for power ratings at specific site conditions.		

Lubrication system	
Oil Filter Type:	Eco, Full Flow
Total Oil Capacity l (US gal):	62.0 (16.4)
Oil Pan l (US gal):	53.0 (14.0)
Oil Type:	API CI4 15W-40
Cooling Method:	Water

Performance	50 Hz	60 Hz
Engine Speed: RPM	-	1800
Gross Engine Power: kW (hp)		
-Standby:	-	554.0 (743.0)
-Prime:	-	504.0 (676.0)
BMEP: kPa (psi)		
-Standby:	-	2575.0 (373.5)
-Prime:	-	2343.0 (339.8)
Regenerative Power: kW	N/A	58.0

Fuel System				
Fuel Filter Type:	Replaceable Element			
Recommended Fuel:	Class A2 Diesel			
Fuel Consumption: l/hr (US gal/hr)				
	110% Load	100% Load	75% Load	50% Load
Prime				
50 Hz	-	-	-	-
60 Hz	120.1 (31.7)	109.4 (28.9)	84.3 (22.3)	58.1 (15.3)
Standby				
50 Hz	-	-	-	-
60 Hz	120.1 (31.7)	92.7 (24.5)	64.0 (16.9)	
(based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, Class A2)				

Exhaust System	50 Hz	60 Hz
Silencer Type:	Industrial	
Silencer Noise Reduction	SD150 (1)	
Pressure Drop Across		
Silencer System: kPa (in Hg)	-	0.28 (0.083)
Silencer Noise Reduction		
Level: dB	-	11
Max. Allowable Back		
Pressure: kPa (in. Hg)	-	6.8 (2.0)
Exhaust Gas Flow:		
m ³ /min (cfm)	-Standby:	- 105.3 (3719)
	-Prime:	- 105.3 (3719)
Exhaust Gas Temperature: °C (°F)		
m ³ /min (cfm)	-Standby:	- 511 (952)
	-Prime:	- 511 (952)

Consult your Olympian representative for more information

Alternator Performance Data

Data Item	50 Hz				60 Hz				
					480/277V	380/220V			440/254V 220/127V
Motor Starting Capability* kVA	-	-	-	-	1428	935	-	-	1222
Short Circuit Capacity** %	300	300	300	300	300	300	300	300	300
Reactances: Per Unit									
Xd	-	-	-	-	2.880	4.594	-	-	3.427
X'd	-	-	-	-	0.150	0.238	-	-	0.177
X''d	-	-	-	-	0.104	0.166	-	-	0.124

Reactances shown are applicable to standby ratings.

* Based on 30% voltage dip.

** With optional Permanent Magnet generator or AREP excitation.

Alternator Technical Data

Physical Data	
Manufacturer:	OLYMPIAN
Model:	LL6114F
No. of Bearings:	1
Insulation Class:	H
Winding Pitch - Code:	2/3 - 6
Wires:	12
Ingress Protection Rating:	IP23
Excitation System:	SHUNT
AVR Model:	R450M

Operating Data	
Overspeed: RPM	2250
Voltage Regulation (steady state) (%):	+/- 0.5
Wave Form NEMA = TIF:	50
Wave Form IEC = THF:	2.0%
Total Harmonic Content LL/LN:	2.0%
Radio Interference:	Suppression is in line with European Standard EN61000-6
Radiant Heat: kW (Btu/min)	
-50 Hz:	-
-60 Hz:	32.1 (1825)

Consult your Olympian representative for more information

